

### REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated November 23, 2009, is respectfully requested in view of this amendment. By this amendment, claims 1 and 13 have been amended. Claims 1-3, 5-8, 10, 13, 15-17, 19 and 20 are pending in this application and presented for examination.

Claims 1 and 13 have been amended to describe providing the nonwoven web as suitable for winding about a mandrel, winding the web in a manner whereby a leading end of the nonwoven web overlaps a trailing end of the nonwoven web to form a coil about the mandrel, supplying the reinforcing layer into the winder during the winding up of the nonwoven web to at least partially embed the reinforcing layer within the roll of nonwoven web, so that during the winding said reinforcing layer becomes an integral constituent part of the sleeve, the outer sheath reinforcing layer including the leading end of the outer sheath reinforcing layer wound into the coil, arranged around the full circumference, and extending completely circumferentially around the coil.

Support is found throughout the specification, *inter alia*, Figs. 1-3 and 5 and at paragraphs [0038] and [0049] (as published in U.S. Published Application No. 2006-0141177). It is respectfully submitted that the above amendments introduce no new matter within the meaning of 35 U.S.C. §132.

In the outstanding Office Action, the Examiner rejected claims 1-3, 5-8, 10, 15-17, 19, and 20 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1-3, 5-8, 10, 15-17, 19, and 20 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In art rejections, claims 1, 2, 6-8, 10, and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over British reference no. GB1214330 to Baldwin-Ehret-Hill Inc. (hereinafter the *B-E-H* reference) in view of British reference no. GB2032845 to Seitz (hereinafter *Seitz*). Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, further in view of U.S. Patent No. 3,824,140 to Hofmann (hereinafter *Hofmann*). Claim 3 was rejected under

35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 2, taken further in view of U.S. Patent No. 5,056,564 to Roth (hereinafter *Roth*). Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,576,206 to Lauren (hereinafter *Lauren*) in view of *Seitz*. Claims 15, 16, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, taken further in view of U.S. Patent No. 3,346,016 to Blau et al. (hereinafter *Blau*). Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, taken in view of U.S. Patent No. 5,457,136 to Hartranft et al. (hereinafter *Hartranft*). These rejections, as applied to the revised claims, are respectfully traversed.

#### **Rejections Under 35 U.S.C. §112, First Paragraph**

The Examiner rejected claim 1 under 35 U.S.C. §112, first paragraph as allegedly failing to meet the enablement requirement. Specifically, the Examiner indicated that the term "continuous" did not find support in the specification, and that, "feeding that least one reinforcing layer into the winder before the nonwoven web runs into the winder," was alleged to be unclear.

#### **Response**

This rejection is traversed as follows. The test of whether the 35 U.S.C. §112 enablement requirement is met is whether a person having ordinary skill in the art could make or use the invention without undue experimentation. *United States v. Teletronics, Inc.* 857 F.2d 778, 785 (Fed. Cir. 1988). Factors that should be considered in determining whether a disclosure would require undue experimentation include: 1) the necessary quantity of experimentation, 2) the amount of direction or guidance presented in the specification, 3) the presence or absence of working examples, 4) the nature of the invention, 5) the state of the prior art, 6) the relative skill of those in the art, 7) the predictability of the art, and 8) the claim breadth. *In re Wands*, 858 F.2d 731, 737, (Fed. Cir. 1988). It is improper to conclude that a disclosure is not enabling based

on an analysis of only one of the above factors while ignoring one or more of the others. The Examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of non-enablement must be based on the evidence as a whole. *Id.* at 737, 740.

Independent claim 1 has been amended to describe, "supplying at least one reinforcing layer into the winder before the nonwoven web runs into the winder." This is believed to find full support in the specification, which, for example at paragraph [0038] recites:

"... the winder 1 contains a second supply belt 4, by means of which an outer reinforcing layer 13 can be supplied in such a way that its leading end overlaps the trailing end section of the nonwoven web 11 such that it is also wound into the coil. As a result of the further rotation of the winding mandrel 2, the reinforcing layer 13 is ultimately led around the entire periphery of the existing coil, and its trailing end overlaps its leading end in a manner that can be seen schematically from FIG. 2. ..."

Accordingly, it is submitted that the rejection under 35 U.S.C. §112, first paragraph, is fully overcome. Removal of this rejection is respectfully requested.

#### **Rejections Under 35 U.S.C. §112**

The Examiner rejected claims 1-3, 5-8, 10, 15-17, 19, and 20 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Reference was made to various terms in the claims, including, "trailing end," the pipe sleeve comprising a, "continuous nonwoven web," so that pipe sleeve itself has a continuous web, and the phrase, "feeding at least one reinforcing layer," as related to, "runs into." Additionally, the antecedent basis for "the coil" was deemed insufficient.

#### **Response**

By this Response and Amendment, the rejections to claims 1-3, 5-8, 10, 15-17, 19, and 20, as applied to the amended claims, are respectfully traversed, and reconsideration and withdrawal of the rejection are respectfully requested.

35 U.S.C. §112, second paragraph, states that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

Regarding the use of, "trailing end," in claims 1 and 13, the specific portion of the trailing end is not part of the claim and is therefore not a part of the claim description. In terms of definition, a trailing end would be an end that is other than a lead portion. This coincides with the meaning of the phrase, which is to provide a last part with an outer sheath reinforcing layer, but without specifying a particular range of values or proportions. Therefore, it is not required to define a specific portion in order for the claim to meet the requirements of 35 U.S.C. §112, second paragraph.

The term "continuous" has been cancelled from the claims, instead the claims set forth the nature of the web as, for example, "suitable for winding about a mandrel." Similarly, the pipe sleeve is no longer defined as a continuous web in claim 13.

Regarding "feeding" and "runs into," the terminology has been amended to "supplying". The material is supplied, and consequentially "runs into" the winder.

Claim 20 now provides antecedent basis for "the coil."

Amended claims 1 and 13 therefore now particularly point out and distinctly claim the subject matter. By this Response and Amendment, the rejections to claims 1, 13 and claims dependent therefrom are believed to be overcome.

It is therefore respectively submitted that the rejection under 35 U.S.C. 112 should be withdrawn.

**Rejections of claims 1-3, 5 8, 10, 15 17, 19, and 20 Under 35 U.S.C. §103**

The Examiner rejected claims 1, 2, 6-8, 10, and 19 under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*. Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, further in view of *Hofmann*. Claim 3 was rejected under 35 U.S.C. §103(a) as being

unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 2, taken further in view of *Roth*. Claims 15, 16, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, taken further in view of *Blau*. Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over the *B-E-H* reference in view of *Seitz*, as applied to claim 1, taken in view of *Hartranft*. These rejections, as applied to the amended claims, are respectfully traversed.

### Response

This rejection is traversed as follows. To show obviousness under §103, it is necessary to show an incentive to benefit from the change. *KSR International Co. v. Teleflex Inc. et al.*, 127 S.Ct. 1727, 82 USPQ2d 1385 (2007).

"The proper question to have asked was whether a pedal designer of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to upgrading Asano with a sensor. In automotive design, as in many other fields, the interaction of multiple components means that changing one component often requires the others to be modified as well." (*id* at 127 S.Ct. 1744)

A demonstration of obviousness under §103 requires that the combination represent a design step well within the grasp of a person of ordinary skill in the relevant art. *id*.

"KSR provided convincing evidence that mounting a modular sensor on a fixed pivot point of the Asano pedal was a design step well within the grasp of a person of ordinary skill in the relevant art. (*id* at 127 S.Ct. 1746)

The standard for anticipation under 35 USC §102 and obviousness under 35 USC §103(a) following *KSR* is detailed in *Forest Labs v. Ivax Pharmaceuticals*, 501 F.3d 1263; 84 USPQ 2d 1099; 41 A.L.R. Fed. 2d 697 (2007). In *Forest Labs*, the court determined that a reference mentioned a particular chemical component, but did not explain how to obtain it and therefore deemed that, "A reference that is not enabling is not anticipating." The court then deemed the product was therefore unobvious over that reference.

Finally, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgen Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991).

The *B-E-H* reference is cited as describing a laminated pipe covering in which a reinforcing layer is fed into a winder, with glass fiber between mineral wool layers.

The Office Action alleges that all layers must be fed into the winder before any layer (i.e. reinforcing layer or the nonwoven web) runs into the winder. In contrast, Applicants' claims specifically state that the "winding up the nonwoven web on a winding mandrel ... whereby a leading end of the nonwoven web overlaps a trailing end of the nonwoven web to form a coil." As a result, it is possible to follow Applicants' construction and not have all layers fed into the winder before any layer runs into the winder. This is shown in Applicants' Fig. 3, in which it is possible to delay feeding all layers until after the nonwoven web has run into the winder.

In addition, Applicants' claims describe:

"... providing a nonwoven web suitable for winding about a mandrel ... made of mineral wool ... winding up the nonwoven web on a winding mandrel ... whereby a leading end of the nonwoven web overlaps a trailing end of the nonwoven web to form a coil about the mandrel ... curing the binder ... supplying at least one reinforcing layer into the winder before the nonwoven web runs into the winder during the winding up of the nonwoven web to at least partially embed the reinforcing layer within the roll of nonwoven web ... providing an outer sheath reinforcing layer added to a trailing end section ... [that] overlaps the trailing end section of the nonwoven web, after providing the reinforcing layer ... to lie on the outside of the pipe sleeve with the effect of a lamination, as an outer layer, the outer sheath reinforcing layer thereby including the leading end of the outer sheath reinforcing layer wound into the coil, arranged around the full circumference, and extending completely circumferentially around the coil." (Claim 1)

The *B-E-H* reference is acknowledged as not describing the provision of an outer sheath reinforcing layer added to the trailing end section of the nonwoven web such that a leading end of the outer sheath reinforcing layer overlaps the trailing end section of the nonwoven web, after providing the reinforcing layer in such a way that said outer sheath reinforcing layer comes to lie on the outside of the pipe sleeve with the effect of a lamination, as an outer layer, the outer

sheath reinforcing layer arranged around the full circumference, completely circumferentially around the coil. Referring to Applicants' claims, the outer sheath is:

"... added to a trailing end section of the nonwoven web whereby a leading end of the outer sheath reinforcing layer overlaps the trailing end section of the nonwoven web, after providing the reinforcing layer ... the outer sheath reinforcing layer thereby including the leading end of the outer sheath reinforcing layer wound into the coil, arranged around the full circumference, and extending completely circumferentially around the coil."

(Claim 1)

*Seitz* is cited as showing an outer layer arranged completely circumferentially around the coil, "[l]ying on the outside of the pipe sleeve with the effect of lamination, as an outer layer." There is no indication of the outer layer wound into the coil itself. Instead, the rejection under 35 USC §103(a) describes alleges that it would have been obvious to completely wrap the outer layer around the coil (which is as described by *Seitz*), without describing, "the leading end of the outer sheath reinforcing layer wound into the coil."

This stipulation fails to meet the *KSR* test because, "the outer sheath reinforcing layer thereby including the leading end of the outer sheath reinforcing layer wound into the coil," is not a mere design step (not "a design step well within the grasp of a person of ordinary skill in the relevant art"). In this regard, *Seitz* specifies that the outer sheath is configured as a shell and therefore would not be wound into the trailing edge of the roll. This is more than a superficial difference; it is a basic function of the *Seitz* construction.

It is respectfully submitted that a modification of the *B-E-H* reference to incorporate an outer sheath which is wound into the *B-E-H* reference would not be an obvious modification. There would be no expectation that this arrangement would work because the nature of the *Seitz* shell is just that -- a shell formed entirely on the outside of the structure, in the manner of a conventional fiber pipe insulation product.

There would be no expectation of success from such a modification because the very nature of a sheath on a fiber pipe insulation product is to provide an outer shell, in the manner described by *Seitz*, and further to provide a means of support for the entire pipe insulation

product when in service by securing the outside of the insulation. Therefore, one would not expect to improve the product by burying a portion of the sheath inside the insulation.

It is therefore respectively submitted that the rejection under 35 U.S.C. §103(a) should be withdrawn.

**Claims 2, 3, 5 8, 10, 15 17, 19, and 20**

Claims 2, 3, 5-8, 10, 15-17, 19, and 20 are written in dependent form and depend, directly or serially, from claim 1. Those dependent claims should be allowable for at least the same reason that claim 1 is allowable.

**Rejections of claim 13 Under 35 U.S.C. §103**

The Examiner rejected claim 13 under 35 U.S.C. §103(a) as being unpatentable over *Lauren* in view of *Seitz*. This rejection, as applied to amended claim 13, is respectfully traversed.

**Response**

This rejection is traversed because there is no showing of a *prima facie* case of obviousness, as indicated above.

Claim 13 sets forth:

"... an outer sheath ... wound circumferentially around said pipe sleeve, ... added to a trailing end of the roll of nonwoven web ... with a leading end of the outer sheath ... at least partially embedded within the roll of nonwoven web thereby including the leading end of the outer sheath reinforcing layer wound into the coil ... ."

*Lauren* is acknowledged as not disclosing a reinforcing layer in the form of a trickle guard would circumferentially around it. *Seitz* is cited as showing an insulating shell; however, there is no cited reference showing the feature of "the outer sheath ... at least partially embedded within the roll of nonwoven web." Instead, the rejection under 35 USC §103(a) alleges that the *Seitz* sheath could be described as a trickle guard.



It is respectfully submitted that the presence of the outer sheath fails to show, "a leading end of the outer sheath ... at least partially embedded within the roll of nonwoven web thereby including the leading end of the outer sheath reinforcing layer wound into the coil."

Applying the *KSR* test, the provision of the leading end of the outer sheath at least partially embedded within the roll of the nonwoven web is not a mere design step (not "a design step well within the grasp of a person of ordinary skill in the relevant art"). In this regard, the configuration as set forth in claim 13 would be unobvious under 35 U.S.C. §103(a).

Further, as mentioned above, there would be no expectation of success from such a modification because the very nature of a sheath on a fiber pipe insulation product is to provide an outer shell, in the manner described by *Seitz*, and further to provide a means of support for the entire pipe insulation product when in service by securing the outside of the insulation. Therefore, one would not expect to improve the product by burying the sheath (or more to the point, a portion of the sheath) inside the insulation.

Applicants therefore respectfully submit that the *Lauren* and *Seitz* references do not teach or suggest all the features as recited in claim 13. It is therefore respectfully submitted that the rejection of claim 13 under 35 U.S.C. §103(a) should be withdrawn.

Applicants respectfully request that the Examiner withdraw the rejections and that the case be passed to issuance.

### INFORMATION DISCLOSURE

Applicants submit an Information Disclosure Statement herewith. The references were cited in a corresponding prosecution before the Japanese Patent Office.

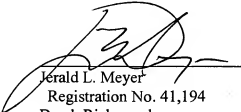
### CONCLUSION

In light of the foregoing, Applicants submit that the application is in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner call the undersigned.

Respectfully submitted,  
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February 19, 2010

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